

## **A Guide to Implementing the Jordan Lake Water Supply Watershed Riparian Buffer Rules for Forest Management Activities**

Effective August 11, 2009, N.C. Administrative Code rule 15A NCAC 2B .0263 through .0273 and .0311(p) requires protecting and maintaining riparian areas along waterbodies located throughout the Jordan Lake watershed. This watershed includes the three tributary subwatersheds known as the Upper New Hope, the Lower New Hope, and the Haw River arms of the Jordan Reservoir (see map on Page 4). Contact the N.C. Division of Water Quality (DWQ) Raleigh or Winston-Salem Regional Offices for more information or visit: <http://portal.ncdenr.org/web/wq> For a copy of the rules, go to the website: <http://portal.ncdenr.org/web/wq/swp/ws/401/riparianbuffers/rules>

### **Where To Apply This Riparian Buffer Rule**

**This rule applies to perennial streams, intermittent streams, ponds, lakes, and reservoirs located in the Jordan Lake Water Supply Watershed if it is approximately shown on any of the following references:**

- It appears on the most recent version of a USGS 1:24000 (“7.5 Minute Quad”) topographic map.
- It appears on the most recent published version of an USDA-NRCS Soil Survey map. For a list of acceptable versions, visit <http://portal.ncdenr.org/web/wq/swp/ws/401/riparianbuffers/maps> Click on the “Most recent published Soil Survey Table” link.
- Other maps approved by the Environmental Management Commission (EMC) as more accurate than those identified above.

**The Jordan Lake Water Supply Watershed Riparian Buffer Rules do not apply to the following waterbodies:**

- ✗ Any “surface waters” that do not appear on any of the referenced maps.
- ✗ Any ephemeral streams.
- ✗ Ditches or other man-made water conveyances, other than modified natural streams.
- ✗ Man-made ponds and lakes that are located outside natural drainage ways.
- ✗ Areas mapped as intermittent streams, perennial streams, lakes, ponds, or reservoirs on the most recent versions of either a USGS 1:24000 scale topographic map or published NRCS soil survey map where no perennial waterbody, intermittent waterbody, lake, pond or reservoir actually exists on the ground. This type of determination must be made by DWQ or those to which they have delegated that authority.

- Seek advice from a professional certified in DWQ’s “Surface Water Identification Training and Certification Program” when determining this rule’s applicability. The NC Forest Service has personnel that are certified through this program for making determinations in forestry situations.
- Modified streams may look like ditches, but still require implementing these watershed buffer rules. This leaflet is not intended to provide legal advice or final interpretation of the Jordan Lake Water Supply Watershed riparian buffer rules.
- On waterbodies where the Jordan Lake Water Supply Watershed riparian buffer rules do not apply, a Streamside Management Zone (SMZ) of appropriate width is still required to comply with the Forest Practices Guidelines Related to Water Quality (FPGs). Information on FPGs can be found at <http://ncforestservice.gov/publications/Forestry%20Leaflets/WQ01.pdf>
- There may be additional requirements of the Jordan Lake Water Supply Watershed Riparian Buffer Rules not covered in this Leaflet with which forestry activities must comply. Check the entire rule document at <http://portal.ncdenr.org/web/wq/swp/ws/401/riparianbuffers/rules> for all necessary requirements related to road construction and other land disturbing activities.

### **How To Measure the Required Buffer Width**

**For streams:**

Measurement will “begin at the top of the bank and extend landward” and “on all sides of the surface water, measured horizontally on a line perpendicular to a vertical line marking the top of the bank.”

**For other waterbodies:**

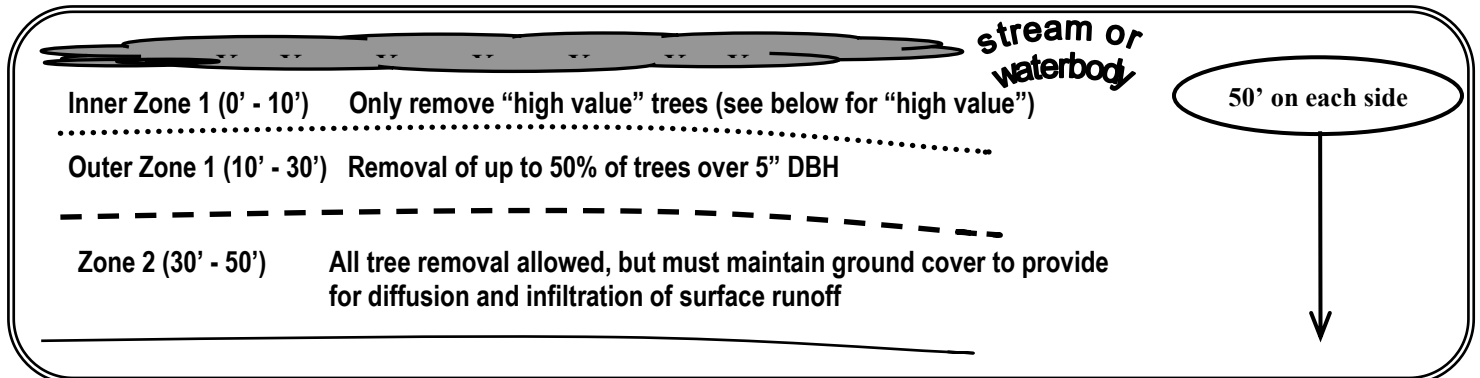
Measurement will “begin at the normal water level and extend landward” and will be “measured horizontally on a line perpendicular to a vertical line marking the normal water level.”

## Required Riparian Buffer Widths and Zones

The buffer area is made up of two zones that together are 50-foot wide around all sides of the waterbody

**Zone 1:** The closest 30 feet from the edge of the waterbody extending towards land. Zone 1 is subdivided into two areas that have different selective harvesting requirements. See illustration below.

**Zone 2:** The next 20 feet towards land, extending from the end of Zone 1.



## Timber Harvesting In The Jordan Lake Watershed Riparian Buffer

**Timber harvesting is only allowed to occur in Zone 1 (30 feet closest to the stream or waterbody) of the buffer if:**

- 1) A forest management plan for the property is prepared, or
- 2) The property is enrolled in that county's Present-Use Tax Valuation Program for forestry use.

Copies of either the approval of the deferment for use value under forestry or the forest management plan shall be produced upon request.

<b>Zone 1 - Inner 10 feet: 0 to 10 feet (land immediately adjacent to the stream or waterbody)</b>	
<b>Allowed</b>	Selective harvest of individual "High Value" trees. Trees shall be removed with minimum disturbance to soil and residual vegetation.
<b>Allowed with Restrictions</b>	<ul style="list-style-type: none"> <li>• "High Value" Pine trees are defined as any tree with a Diameter Breast Height (DBH) of 14" and greater, <u>or</u> a stump diameter of 18" and greater.</li> <li>• "High Value" Hardwood and Wetland trees are defined as any tree with a DBH of 16" and greater, <u>or</u> a stump diameter of 24" and greater.</li> </ul>
<b>Prohibited</b>	<ul style="list-style-type: none"> <li>• No tracked or wheeled vehicles allowed except at stream crossings designed, constructed, and maintained in accordance with FPG .0203.</li> <li>• No removal of any tree with exposed primary roots visible in the streambank. <ul style="list-style-type: none"> <li>◦ Unless listed as an exempt activity under Vegetation Management in the Table of Uses, Sub-Item (9) of this Rule.</li> <li>◦ It is recommended to mark/flag residual "leave" trees to make sure they are protected.</li> </ul> </li> <li>• No soil-disturbing site preparation activities.</li> </ul>

<b>Zone 1 – Outer 20 feet: 10 to 30 feet (land adjoining the inner 10 feet area)</b>	
<b>Allowed</b>	<ul style="list-style-type: none"> <li>• Selective harvest is allowed. Trees shall be removed with minimum disturbance to soil and residual vegetation.</li> <li>• Remaining trees left standing should be as evenly spaced as possible.</li> </ul>
<b>Allowed with Restrictions</b>	<ul style="list-style-type: none"> <li>• Tracked or wheeled vehicles are permitted for the purpose of selective timber harvesting where there is no other practical alternative for removal of individual trees and provided that activities comply with North Carolina FPGs.</li> <li>• Harvest of no more than 50% of the trees over 5" DBH: <ul style="list-style-type: none"> <li>◦ Re-entry for natural forests is allowed every 15 years.</li> <li>◦ Re-entry for forest plantations is allowed every 5 years.</li> </ul> </li> </ul>
<b>Prohibited</b>	<ul style="list-style-type: none"> <li>• No removal of trees 5" DBH and smaller.</li> <li>• No soil-disturbing site preparation activities.</li> </ul>

<b>All of Zone 2: 30 to 50 feet (The outermost 20 feet of the entire riparian buffer)</b>	
<b>Allowed</b>	Harvest and regeneration of the forest stand is allowed, so long as there is sufficient ground cover maintained to provide for diffusion and infiltration of water runoff. <b>All activities must still comply with the FPGs.</b>

## **Forestry Activities In The Riparian Buffer**

### **Required in the Entire 50-foot Riparian Buffer**

- Diffuse flow of water shall be maintained in the riparian buffer by dispersing concentrated runoff flow and re-establishment of vegetation.
- Concentrated runoff from new ditches or man-made conveyances shall be converted to diffuse flow before the runoff enters Zone 2 of the riparian buffer.
- Periodic corrective action to restore diffuse flow shall be taken as necessary and shall be designed to impede the formation of erosion gullies.
- No new stormwater conveyances are allowed through the buffers except for those specified in Item (9) of this Rule addressing stormwater management ponds, drainage ditches, roadside ditches, and stormwater conveyances.

### **Forestry Activities Allowed in the Entire 50-foot Riparian Buffer**

- Individual trees may be treated to maintain or improve their health, form, or vigor.
- Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation. These practices must be approved by the NC Forest Service for a specific site. The NC Forest Service must notify the Division of Water Quality of all approvals.
- Removal of individual trees that are in danger of causing damage to structures or human life.

### **Forestry Activities Allowed with Restrictions in the Entire 50-foot Riparian Buffer**

- Access roads and skid trails only allowed for temporary and permanent stream crossings, which are established in accordance with FPG .0203. Temporary stream crossings shall be permanently stabilized after any site disturbing activity is completed.
- Timber felling shall be directed away from the stream or waterbody.
- Skidding shall be directed away from the stream or waterbody and shall be done in a manner that minimizes soil disturbance and prevents rutting or the creation of channels.
- Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the buffer shall be allowed provided that soil disturbance is minimized.
- Application of fertilizer only allowed as necessary for permanent stabilization. Broadcast application of fertilizer or herbicides to the adjacent forest stands shall be conducted so that the chemicals are not applied directly to or allowed to drift into buffer.

### **Forestry Activities Not Allowed in the 50-foot Riparian Buffer**

- ✗ NO logging decks or sawmill sites placed in the buffer.
- ✗ NO high intensity prescribed burns.



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Developed in cooperation with NC Division of Water Quality Staff.

This is a 'print-as-needed' document available at N.C. Forest Service offices and at [www.ncforests-service.gov](http://www.ncforests-service.gov).

